Application Number 09/534,824
Response dated June 23, 2004
Responsive to Office Action mailed March 24, 2004

REMARKS

This amendment is responsive to the Office Action dated March 24, 2004. Applicants have not amended any of the claims. Claims 1-49 are still pending.

In the Office Action, the Examiner rejected claim(s) 1-49 under 35 U.S.C. 103(a) as being unpatentable over Marimont (USPN 5,835,099) (hereafter Marimont) in view of Applicants' Admitted Prior Art (AAPA). Applicants respectfully traverse the rejections. The Examiner's characterization of AAPA is incorrect. In addition, Marimont fails to disclose or suggest anything relevant to the inventions defined by Applicants' claims. Moreover, even if one accepts the Examiner's improper characterizations of the prior art, such prior art clearly lacks any motivation that would have led a person of ordinary skill in the art to modify Marimont in order to arrive at Applicants' claimed invention. Applicants address each of these three points in greater detail below.

The Examiner's characterization of AAPA is incorrect

The Examiner stated that Applicants have admitted that it is well known to convert .PDF image data using a raster image processor. Applicants do not dispute this point. The Examiner further correctly indicated that .PDF image data can include complex commands and subroutines. The Examiner erroneously stated, however, that all of such subroutines are implicit color commands. Applicants strongly dispute this point.

The .PDF image data may include a wide variety of implicit commands, but only some of these implicit commands may affect color rendering. Moreover, only those implicit commands that implicitly affect color rendering are implicit color commands. For purposes of illustration, an implicit command to draw a circle of a particular radius is not an implicit color command insofar as it does not implicitly specify a color for the circle. Moreover, if a fill color for the circle is specified, the fill color may be implicit or explicit. Thus, if a color value is explicitly assigned to the interior of the circle to specify the fill color, the command to draw the circle would still not be an implicit color command because color is not implicitly defined in the command.

In contrast, an implicit color command is a page description file color command which specifies color values indirectly. In this case, instead of explicitly assigning a color value to a

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particular object or region within an image, an implicit color command defines the color of an object or region as a function of other graphic information and color reference values. An example of an implicit color command is a "blend" command, which specifies a starting color value, an ending color value, and a function that defines a progression of colors ranging between the starting and ending color values. Hence, like other implicit commands, a "blend" command defines only the endpoint values as reference values for a shading function. Thus, with respect to commands that include a "blend," the intermediate color values of the command are implicit within the page description file, and can undermine the ability to predictably modify the color values, e.g., for accurate color correction.

One major flaw in the Examiner's analysis is his reliance on a faulty premise with respect to AAPA. In particular, the Examiner indicated that "the identification of implicit color commands within a page description file must be inherently true to affect (sic) the conversion of the admitted prior art." This simply is not the case. On the contrary, raster image processing typically occurs without regard to the nature of the commands, and includes execution of all the implicit commands as well as the explicit commands to generate a bitmap used to drive an imaging device. Accordingly, during conventional raster image processing, the implicit color commands are not specifically identified, but are executed like the other implicit or explicit commands in order to generate a bit map. Accordingly, Applicants have in no way admitted that conventional raster image processing includes an inherent identification of implicit color commands.

In short, conventional raster image processing does not include any inherent identification of implicit color commands, as suggested by the Examiner. For this reason alone, the Examiner's conclusions of obviousness are based on a faulty premise with respect to AAPA and conventional raster image processing. Therefore, Applicants believe the rejections are improper and should be withdrawn.

Marimont fails to disclose or suggest Applicants' claimed inventions

Marimont fails to disclose or suggest the inventions defined by Applicants' claims, and provides no teaching that would have suggested the desirability of modification of anything in the prior art in order to arrive at the inventions recited in Applicants' claims.

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For example, contrary to requirements of the claimed invention, Marimont does not disclose or suggest a technique involving identifying implicit color commands within a page description file and converting them to explicit color commands. In particular, Marimont describes space-color separable (SCS) models, and does not even include any discussion of page description files (.PDF's), much less a suggestion of the techniques of Applicants claims, which require identifying implicit color commands within a page description file and converting them to explicit color commands.

The Examiner appears to rely upon Marimont merely to demonstrate that implicit color commands were known in the prior art. In particular, the Examiner appears to be stating that the Space-Color Separable (SCS) model of Marimont makes use of implicit color commands. With respect to implicit color commands, however, Marimont teaches the exact opposite of Applicants' claimed invention. For example, the creation of SCS models appears to involve the creation of implicit color commands from explicit commands, which is the exact opposite of the features recited in Applicants' claims. Whereas Applicants' claims recite the conversion from implicit color commands to explicit color commands, Marimont teaches the creation of implicit color commands in an SCS model from explicit color commands.

Moreover, Marimont discloses SCS models in order to provide compactness, while still preserving the acceptable appearance of colors during editing operations. See column 3, lines 22-47. Accordingly, any conversion of implicit color commands within the page description file to explicit color commands, as recited in Applicants' claims, would appear to be contrary to Marimont's stated goal of compactness. Moreover, Marimont also lacks any appreciation of the color correction advantages that can be achieved by the conversion of implicit color commands within the page description file to explicit color commands.

As discussed in Applicants' disclosure, Applicants' invention pertains to techniques performed with respect to a page description file that includes implicit color commands. An implicit color command specifies color values indirectly. In particular, instead of explicitly assigning a color value to a particular object or region within an image, an implicit color command defines the color of an object or region as a function of other graphic information and color reference values. However, numerous other implicit commands may exist in a page description file, many of which are not necessarily implicit color commands.

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Again, a "blend" command is one example of an implicit color command. A "blend" may specify first and second endpoint color values, and define a shading function that, upon interpretation, generates intermediate color values ranging between the endpoint values based on pixel position. In this manner, a "blend" command may call for generation of several intermediate color values. Like other implicit commands, however, a "blend" command defines only the endpoint values as reference values for the shading function. Thus, the intermediate color values are implicit within the page description file, and undermine the ability to predictably modify the color values, e.g., for accurate color correction.

An explicit color command, in contrast, assigns an explicit color value to an object or region in an image. Thus, in general, an explicit color command does not rely on a graphic function or reference values. Instead, an object or region defined by an explicit color command generally carries its own explicitly defined color value.

As described in Applicants' disclosure, an implicit "blend" color command may be converted to a series of objects with explicitly defined color values. The explicitly defined color values are more susceptible to predictable modifications, e.g., to provide for accurate color correction of the file. For example, the explicit color commands, which are converted from the implicit color commands, can be modified, as recited in claim 3, in order to improve color accuracy in the page description file.

Again, Marimont fails to disclose any technique involving the identification of implicit color commands and the conversion of the implicit color commands to explicit color commands. In the passages cited by the Examiner, in particular, Marimont clearly does not refer to identifying implicit color commands nor converting such commands to explicit color commands.

Moreover, to the extent that Marimont has any relevance to implicit color commands, Marimont appears to teach the exact opposite of Applicants' claimed invention. For example, the SCS models described in Marimont appear to teach the creation of implicit color commands from explicit commands, which is the exact opposite of the features recited in Applicants' claims. In this sense, Marimont would complicate, rather than simplify the color correction goals and the features of Applicants' invention, e.g., recited in dependent claim 3.

In short, Marimont teaches modeling techniques that bear nothing in common with the features of Applicants claims, and actually teach away from the conversion of implicit color

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commands within the page description file to explicit color commands. Again, Marimont teaches modeling techniques for modeling color images in a compact manner that preserves the appearance of colors during editing operations. Thus, whereas Marimont may teach the creation of implicit commands, Marimont clearly lacks any discussion of the identification of implicit color commands within a page description file and the conversion of those implicit color commands to explicit color commands.

The Examiner has also failed to identify any motivation in the prior art that would have led a person of ordinary skill in the art to modify Marimont with AAPA

As outlined above, the Examiner's characterization of AAPA is based on a faulty premise that an identification of implicit color commands within a page description file must be an inherent part of raster image processing. This is clearly not the case. Moreover, as outlined above, Marimont is completely unrelated to the features of Applicants' claims and actually teaches away from Applicants' claimed invention.

In addition to these deficiencies, Applicants further submit that the Examiner has failed to identify any motivation in the prior art that would have led a person with skill in the art to modify Marimont with AAPA. In other words, even if one accepts the faulty premise of the Examiner with respect to AAPA and further ignores the fact that Marimont teaches the opposite of Applicants invention, the prior art still lacks any motivation that would have led a person with ordinary skill in the art modify Marimont in view of AAPA in order to arrive at the claimed invention. On the contrary, Marimont specifically motivates against the conversion of implicit color commands within the page description file to explicit color commands, as recited in Applicants' claims, insofar as Marimont teaches the creation of implicit color commands to improve compactness of the file.

Again, the Examiner appears to rely upon Marimont merely to demonstrate that implicit color commands were known in the prior art. In particular, the Examiner appears to be stating that the Space-Color Separation (SCS) of Marimont makes use of implicit color commands. Applicants submit, however, that even if one accepts the Examiner's characterization of Marimont, a person with ordinary skill in the art would have still lacked any motivation to convert implicit color commands to explicit color commands, as set forth in Applicants' claims.

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Again, to the extent that Marimont describes implicit color commands, Marimont specifically contemplates creating such commands in order to provide compactness, while still preserving the acceptable appearance of colors during editing operations. This is exactly the opposite of Applicants' claimed invention. Whereas Applicants' claimed invention involves the conversion of implicit color commands to explicit commands, e.g., to facilitate improved color correction, Marimont describes the creation of implicit commands to provide compactness. Without access to Applicants' disclosure, a person of ordinary skill in the art would have had no reason to identify implicit color commands within the page description file and convert the implicit color commands within the page description file to explicit color commands, as recited in Applicants' claims. Accordingly, a person with ordinary skill, reading Marimont, would have deliberately avoided a conversion from implicit color commands back to explicit color commands because doing so would undermine the stated goal of compactness outlined in Marimont.

In short, Marimont provides absolutely no suggestion of the identification of implicit color commands within the page description file and the conversion of implicit color commands within the page description file to explicit color commands, as recited in Applicants' claims. Moreover, the prior art clearly lacks any motivation that would have led a person of ordinary skill in the art to either identify the implicit color commands or convert the implicit color commands to explicit color commands.

Conclusion

The Examiner's characterization of AAPA is clearly incorrect. Moreover, Marimont fails to disclose or suggest anything akin to Applicants' claimed inventions, and seems to bear little or nothing in common with Applicants' claims. Moreover, even if one accepts the Examiner's characterizations of AAPA and Marimont, a person with ordinary skill in the art would have still lacked any motivation to convert implicit color commands to explicit color commands, as set forth in Applicants' claims.

For each of these different reasons, Applicants believe that the Examiner has failed to establish a *prima facie* case of obviousness with respect to any of the independent claims. Moreover, Applicants believe that many, if not all, of the dependent claims recite numerous

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additional features that are clearly lacking from the applied references. Accordingly, Applicants in no way acquiesce to any of the Examiner's characterizations of the prior art with respect to the dependent claims, and neither admit nor acquiesce in the grounds of rejections advanced by the Examiner. Applicants reserve further comment on the dependent claims, as each of the independent claims clearly distinguish the applied prior art for at least the three different reasons addressed above.

Applicants respectfully request reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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